

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A lamellar die apparatus for meltblowing a heated liquid into filaments and directing air at the filaments, comprising:

a plurality of plates each having opposite side faces, at least two of said side faces confronting each other and having a liquid passage positioned therebetween for transferring the heated liquid, at least two of said side faces confronting each other and having an air passage positioned therebetween for transferring the air, and at least two of said side faces confronting each other and having a heating element passage therebetween, said heating element passage being formed by respective first and second aligned recesses on different ones of said plates which abut one another,

a heating element positioned within said heating element passage for heating at least two of said plates, and

an extrusion die coupled with said plurality of plates and communicating with said liquid passage and said air passage for discharging the heated liquid as multiple filaments and for discharging the air at the filaments.

2. (Currently Amended) The apparatus of claim 1, wherein said liquid passage is formed by respective ~~first and second~~ third and fourth recesses on different ones of said plates which abut one another~~[[,]]~~ and said air passage is formed by respective ~~third and fourth~~ fifth and sixth recesses on different ones of said plates which abut one another~~[[,]]~~ and said heating element passage is formed by respective ~~fifth and sixth~~ recesses on different ones of said plates which abut one another.

3. (Currently Amended) The apparatus of claim 1, further comprising a plurality of heating element passages positioned between two of said plates that abut one another and a plurality of heating elements respectively contained in said plurality of heating element passages, each of said heating element passages being formed by a recess formed in a side face of one of said two plates and an aligned recess formed in a side face of the other of said two plates.

4. (Original) The apparatus of claim 1, wherein said heating element passage is located between said liquid passage and said air passage such that said heating element heats the liquid in said liquid passage and the air in said air passage.

5. (Original) The apparatus of claim 1, wherein said liquid passage and said air passage each include an inlet portion and an outlet portion, said outlet portion being wider than said inlet portion.

6. (Original) The apparatus of claim 5, wherein said outlet portion of said liquid passage forms an elongate liquid outlet slot.

7. (Original) The apparatus of claim 6, further comprising a plurality of distribution passages communicating with an elongate air outlet slot in one of said plates, said distribution passages further communicating with said air passage.

8. (Currently Amended) ~~The apparatus of claim 7,~~ A lamellar die apparatus for meltblowing a heated liquid into filaments and directing air at the filaments, comprising:
a plurality of plates each having opposite side faces, at least two of said side faces confronting each other and having a liquid passage positioned therebetween for transferring the heated liquid, at least two of said side faces confronting each other and having an air passage positioned therebetween for transferring the air, and at least two of said side faces confronting each other and having a heating element passage therebetween,
a heating element positioned within said heating element passage for heating at least two of said plates, and
an extrusion die coupled with said plurality of plates and communicating with said liquid passage and said air passage for discharging the heated liquid as multiple filaments and for discharging the air at the filaments,
wherein said liquid passage and said air passage each include an inlet portion and an outlet portion, said outlet portion being wider than said inlet portion,
wherein said outlet portion of said liquid passage forms an elongate liquid outlet slot,
said apparatus further comprising a plurality of distribution passages communicating with an elongate air outlet slot in one of said plates, said distribution passages further communicating with said air passage, wherein said extrusion die includes an elongate liquid inlet slot and an elongate air inlet slot respectively aligned in communication with said elongate liquid outlet slot and said elongate air outlet slot.

9. (Currently Amended) A lamellar die apparatus for meltblowing at least two heated liquids into multi-component filaments and directing air at the filaments, comprising:
a plurality of plates each having opposite side faces, at least two of said side faces confronting each other and having a first liquid passage positioned therebetween for transferring a first heated liquid, at least two of said side faces confronting each other and having a second liquid passage positioned therebetween for transferring a second heated liquid, at least two of said side faces confronting each other and having an air passage positioned therebetween for transferring the air, and at least two of said side faces confronting each other and having a heating element passage therebetween, said heating element passage being formed by respective first and second aligned recesses on different ones of said plates which abut one another,

a heating element positioned within said heating element passage for heating at least two of said plates, and

an extrusion die coupled with said plurality of plates and communicating with said first and second liquid passages and said air passage for discharging the first and second heated liquids as the multi-component filaments and for discharging the air at the filaments.

10. (Currently Amended) The apparatus of claim 9, wherein said first liquid passage is formed by respective ~~first and second~~ third and fourth recesses on different ones of said plates which abut one another, said second liquid passage is formed by respective ~~third and fourth~~ fifth and sixth recesses on different ones of said plates which abut one

another, said air passage is formed by respective ~~fifth and sixth~~ seventh and eighth recesses on different ones of said plates which abut one another, and said heating element passage is formed by respective ~~seventh and eighth~~ ninth and tenth recesses on different ones of said plates which abut one another.

11. (Currently Amended) The apparatus of claim 9, further comprising a plurality of heating element passages positioned between two of said plates that abut one another and a plurality of heating elements respectively contained in said plurality of heating element passages, each of said heating element passages being formed by a recess formed in a side face of one of said two plates and an aligned recess formed in a side face of the other of said two plates.

12. (Original) The apparatus of claim 9, wherein said heating element passage is located between said first liquid passage and said air passage such that said heating element heats the liquid in said first liquid passage and the air in said air passage.

13. (Original) The apparatus of claim 9, wherein said first and second liquid passages and said air passage each include an inlet portion and an outlet portion, said outlet portion being wider than said inlet portion.

14. (Original) The apparatus of claim 13, wherein said outlet portions of said first and second liquid passages form respective elongate first and second liquid outlet slots.

15. (Original) The apparatus of claim 14, further comprising a plurality of distribution passages communicating with an elongate air outlet slot in one of said plates, said distribution passages further communicating with said air passage.

16. (Currently Amended) ~~The apparatus of claim 15,~~ A lamellar die apparatus for meltblowing at least two heated liquids into multi-component filaments and directing air at the filaments, comprising:

a plurality of plates each having opposite side faces, at least two of said side faces confronting each other and having a first liquid passage positioned therebetween for transferring a first heated liquid, at least two of said side faces confronting each other and having a second liquid passage positioned therebetween for transferring a second heated liquid, at least two of said side faces confronting each other and having an air passage positioned therebetween for transferring the air, and at least two of said side faces confronting each other and having a heating element passage therebetween,

a heating element positioned within said heating element passage for heating at least two of said plates, and

an extrusion die coupled with said plurality of plates and communicating with said first and second liquid passages and said air passage for discharging the first and second heated liquids as the multi-component filaments and for discharging the air at the filaments,

wherein said first and second liquid passages and said air passage each

include an inlet portion and an outlet portion, said outlet portion being wider than said inlet portion.

wherein said outlet portions of said first and second liquid passages form respective elongate first and second liquid outlet slots.

said apparatus further comprising a plurality of distribution passages communicating with an elongate air outlet slot in one of said plates, said distribution passages further communicating with said air passage, wherein said extrusion die includes first and second elongate liquid inlet slots respectively aligned in communication with said first and second elongate liquid outlet slots and an elongate air inlet slot aligned in communication with said elongate air outlet slot.

17. (Original) The apparatus of claim 16, further comprising a second air passage positioned between two of said side faces, said second air passage communicating with said extrusion die such that air is discharged from said extrusion die on opposite sides of the filaments.

18. (Original) The apparatus of claim 17, wherein said heating element passage is located between said first liquid passage and said air passage such that said heating element heats the first liquid in said first liquid passage and the air in said air passage, and further comprising a second heating element passage positioned between two of said side faces and containing a second heating element for heating at least two of said plates, said second heating element further located between said second liquid passage

and said second air passage such that said second heating element heats the second liquid in said second liquid passage and the air in said second air passage.

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)